

APPROVED
BY
DATE
approved: Macerda
Date : 2/15/07

***A Partnership Approach for Controlling
Nonindigenous Aquatic Nuisance Species in the Great Lakes***

Grant Number: NA05NMF4071201, Interjurisdictional Fisheries Act Grant

Annual Report: September 1, 2005 – August 31, 2006

Completion

Prepared by the Great Lakes Commission for submission to the
U.S. Department of Commerce, National Oceanic and Atmospheric Administration

Introduction

The Great Lakes Commission submits the following annual report (September 1, 2005 - August 31, 2006) to the National Oceanic and Atmospheric Administration (NOAA) under the terms of the Interjurisdictional Fisheries Act grant, *A Partnership Approach for Controlling Nonindigenous Aquatic Nuisance Species in the Great Lakes* (**Grant No. NA05NMF4071201**).

Section 1203 of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646) calls upon the Great Lakes Commission to establish the Great Lakes Panel on Aquatic Nuisance Species and to assist the Panel in coordinating research, monitoring, information/education, and prevention and control activities that will minimize ecological and economic impacts of aquatic nuisance species (ANS).

This grant lends support to the operation of the Great Lakes Panel convened under P.L. 101-646 to address problems caused by the zebra mussel and other aquatic nuisance species in the Great Lakes-St. Lawrence system. Specifically, this project will assist in implementing information, education and outreach activities of the Panel's Information/Education (I/E) Committee. Great Lakes Panel activities discussed below contribute to the advancement of a coordinated information and education (I/E) program on ANS prevention and control in the Great Lakes-St. Lawrence region.

Terminology Change: It should be noted that the federal legislation refers to "aquatic nuisance species" (ANS), as in the title of the Great Lakes Panel on Aquatic Nuisance Species. This term, however, is often used interchangeably with aquatic invasive species (AIS), the preferred term of federal and state managers. An aquatic invasive species is defined as a species not native to the ecosystem under consideration, whereby introduction of this species does or is likely to cause economic or environmental harm or threaten human health. Recognizing the legislative source of the term ANS, other references in this report will be made to aquatic invasive species (AIS).

Accomplishments of the Panel - Overview

Task 1: Provide support to the Panel's Information/Education Committee

The goal of the I/E Committee is to provide direction and regional coordination regarding information, education and outreach activities on aquatic invasive species (AIS). General activities of the committee include:

- Strategic planning and identification of priorities to support regional coordination/collaboration on AIS prevention and control;
- Development of model products to provide guidance on AIS prevention and control for participating agencies, institutions and organizations within and outside the Great Lakes-St. Lawrence region;
- Coordination of presentations on Panel initiatives;
- Development and support of outreach products that feature the state of affairs and emerging issues on Great Lakes aquatic invasions including fact sheets such as the *ANS Update* newsletter and brochures;
- Efforts to assess effectiveness of information, education and outreach efforts related to aquatic nuisance species in the Great Lakes basin.

Ultimately, the I/E Committee strives to establish a solid foundation from which to facilitate coordination for all stakeholders involved in I/E programming, ensuring development and dissemination of consistent messages regarding AIS prevention and control efforts.

Specific project activities pursued by the I/E Committee during the September 1, 2005 - August 31, 2006 grant period included:

Aquatic Invasive Species Information and Education Priorities for the Great Lakes: During the first half of this grant period, staff and committee chair Emily Finnell invested significant time and effort in finalizing the document, *Aquatic Invasive Species Information and Education Priorities for the Great Lakes* and preparing the document for Panel approval. Emily presented the document to the full Panel during the committee report out session of the November 2005 Panel meeting in Ann Arbor, where it was unanimously approved. Following approval, the document was posted online at <http://www.glc.org/ans/panel.html#committees> and submitted to the ANSTF for their review. It should also be noted that the Panel's I/E priorities document was used as a reference in developing an RFP for the 2007 Sea Grant AIS research and outreach grants competition.

The purpose of establishing priorities in the area of information and education is articulated in the following excerpt from the document:

The Information and Education (I/E) Committee of the Great Lakes Panel on Aquatic Nuisance Species (ANS) offers this document as a resource to guide funding entities and to assist stakeholders in the development of projects that address aquatic invasive species information and education priority needs. Priorities are presented in topical areas of prevention, collaboration/partnerships, information management, marketing, education and evaluation. Sources of information for this priorities document include the Great Lakes Panel's Information and Education Strategy for Aquatic Nuisance Prevention and Control, the National Invasive Species Council Management Plan, as well as I/E Committee recommendations, among others. It is expected that the document, as presented, will evolve as new information is available. Although work is underway for some of the priorities as listed; it is understood that further progress is needed under these priorities.

The I/E priorities document is intended to be a long-term tool to assist regional entities in prioritizing outreach activities to advance AIS prevention and control in the region. Structurally, the document promotes partnership and collaboration; consistency in outreach and educational messages; and emphasizes the development of tools to meet the needs of specific target audiences and the need to evaluate the effectiveness of outreach techniques. The final approved document, also incorporated the I/E priorities as established by the Great Lakes Regional Collaboration (GLRC), AIS Strategy Team. For further details on the GLRC draft report, please refer to www.glrc.us, as well as the GLRC discussion found below in this grant report.

Panel Elections: The second half of this grant period marked a change of leadership for the I/E Committee as Panel elections were held (spring 2006) for Panel officers and committee chairs. Rochelle Sturtevant, Sea Grant extension agent at NOAA's Great Lakes Environmental Research Lab was elected as the new I/E chair. Rochelle has been an active member of the Panel's I/E Committee and was recently appointed as an At-large member of the Panel representing Sea Grant in the area of advisory services and extension. Since her election, staff have worked with Rochelle to orient her to her new role, providing her with documents and information on potential committee projects. Projected work for the committee includes further development of committee guidelines with particular emphasis on a workplan.

Rochelle is replacing Emily Finnell, Michigan Department of Environmental Quality (DEQ), Office of the Great Lakes. During Emily's 2004-2006 term, Emily served with active leadership; leading the efforts to complete and gain Panel approval of the I/E Committee's *Aquatic Invasive Species Information and Education Priorities for the Great Lakes*, as detailed above.

Outreach Publication: *Great Lakes Aquatic Invasions*: Commission AIS project staff continued to work on the development of a comprehensive publication covering Great Lakes aquatic invasions. During this grant period, members of the I/E Committee as well as other interested members of the Panel, played a significant role in development of the content, graphics and layout for this 14 page booklet (expanded from the original 8 page layout). The publication was expanded from the 8 page format to provide space for comprehensive coverage of priority Great Lakes AIS issues, in a user friendly format, for the target group of state and federal legislators. Expertise provided by Great Lakes Commission graphic designers Elizabeth Schmidt and Christine Manninen were instrumental in this phase of the booklet development.

Highlighted in the brochure are updates on AIS issues from the previous *Biological Invasions* brochure (1996, rev. 1998) focusing on ecosystem and economic impacts; vectors of AIS introduction and spread and associated case studies; model strategies of AIS prevention and control; and AIS related websites. Graphic illustrations and photos are used to highlight global movement of species as well as high risk aquatic invasive species. The booklet features a fold-out timeline to show points of key AIS introductions and related advancements in national and regional AIS related policy.

Staff provided the opportunity for the I/E Committee to offer comments on the booklet during a conference call in October, 2005; the November 16-17, 2005 Panel meeting in Ann Arbor, Mich.; two conference calls in March, 2006; and the May 9-10, 2006 Panel meeting held in Chicago, Ill. For further details on the brochure meeting presentations please visit www.glc.org/ans/panel.html#glpmeet. Comments offered during these discussions have been incorporated into the booklet and completed as of the end of this reporting period. The historical experience of the I/E Committee in the development and implementation of regional outreach tools has been extremely valuable in assisting staff in development of this publication.

During the next quarter, staff will encourage the full membership of the Great Lakes Panel to review the final draft of the booklet which is expected to go to press in the first quarter of 2007. Approximately 10,000 copies of the publication will be produced and made available to the members of the Panel. Staff is planning a distribution strategy for the booklet targeting state and federal legislators as well as other recreational and commercial water users.

Panel Research Coordination Committee: In addition to supporting development of the I/E Committee's priorities document, Commission staff also worked closely with Research Coordination Committee Chair, Phil Moy of Wisconsin Sea Grant, to provide support for development of the Research Committee's *Aquatic Invasive Species Research Priorities for the Great Lakes* and *Great Lakes Panel Priorities Invasive Species List* (both available on www.glc.org/ans/panel.html#committees). As with the I/E Priorities document, the Research documents are intended to be utilized by funding agencies for project development to identify the highest priority research needs for the Great Lakes region.

Task 2: Preparation of the Panel's quarterly newsletter insert, *ANS Update*

The *ANS Update* continues to be used as a vehicle for getting the word out on priority AIS issues and state/provincial, regional and federal programmatic and legislative developments. The *Update*, formerly a product of the Great Lakes Panel, is now published under the auspices of the Great Lakes Commission. Although review is provided by interested members of the Great Lakes Panel, specifically the I/E Committee, Commission staff have taken on responsibility for the content of this publication rather than the Panel. This paradigm shift was done in the interest of expediting the process of publication production, using Great Lakes Commission staff primarily responsible for the

review of the *Update* feature article published in each issue. The *Update* continues to be distributed to Panel membership, interested parties and others during staff attended meetings. The feature article in the *Update* provides an effective means to highlight emerging policies and scientific/technical developments regarding AIS prevention and control. During this grant period of Sept. 1, 2005 through August 31, 2006 two issues of the *ANS Update* were produced featuring the following articles:

- *ANS Update* (Vol. 11, No. 2): The feature article highlights the *Regional Collaboration Offers Strategy for Curbing Aquatic Invasive Species* authored by Ted Lawrence, Communications and Policy Associate, Great Lakes Fishery Commission (former Great Lakes Commission Sea Grant Fellow). While a Sea Grant fellow with the Commission, Ted tracked the development of the AIS strategy for the GLRC initiative in providing staff support. Based on this experience, Ted wrote a comprehensive article highlighting the process and content of the AIS strategy document (www.glc.org/ans/ansupdate/pdf/2005/ANS-Update-fall05.pdf). A more detailed version of the article which includes supporting quotes from the co-chairs of the GLRC AIS Strategy Team is available online at: www.glc.org/ans/pdf/05-09-02-Article-AIS-GLRC-TL-final.pdf.
- *ANS Update* (Volume 12, No. 1): This issue of the *Update* featured an article titled *Michigan Acts to Close the Pathway to the State for Aquatic Invasive Species via Ship's Ballast Water*. The article was authored by Roger Eberhardt, Panel Chair at the time of publication, Michigan DEQ, Office of the Great Lakes and addresses Michigan's Public Act 33. This Act calls for all oceangoing vessels to obtain a permit before discharging any ballast water into Michigan waters and calls for the establishment of Great Lakes Aquatic Nuisance Species Coalition to help coordinate ballast water regulations around the basin. The article is available online at: <http://glc.org/ans/ansupdate/>.

Following with this theme of state regulated ballast water discharge, the proposed feature article for the next issue of the *ANS Update* will address questions regarding the constitutionality of state regulated ballast water discharges. This article will be written by former Great Lakes Commission Sea Grant Fellow, Lisa Butch and will address state perspectives on state-specific ballast water regulation. It will also highlight U.S. Supreme Court cases which could provide insight on the potential constitutionality of such regulations.

Current and past issues of the *ANS Update* continue to be available online through the Great Lakes Commission website at www.glc.org/ans/ansupdate/.

Task 3: Enhance inter-regional communication and coordination activities

The Panel has consistently recognized the importance of a multi-regional approach to AIS prevention and control. This approach was emphasized in the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646) as well as in the National Invasive Species Act (NISA) of 1996. The Panel supports the establishment of similar panels throughout the country and actively seeks opportunities to share lessons learned in the Great Lakes in such areas as information/education, research coordination and policy coordination.

Great Lakes Panel Meetings: The fall meeting of the Great Lakes Panel was held November 16-17, 2005 in Ann Arbor Michigan. Topics addressed at the meeting included the Great Lakes Panel Operational Guidance document; the newly revised brochure on Great Lakes aquatic invasions; next steps for the Great Lakes Regional Collaboration, AIS Strategy Team; development of a national database on AIS taxonomic experts; and federal AIS legislative updates. At the meeting, the Panel approved the document, *Aquatic Invasive Species Information*

and Education Priorities for the Great Lakes, developed by the Panel's Information and Education (I/E) committee, as discussed above.

The spring meeting of the Great Lakes Panel was held May 9-10, 2006 at the U.S. EPA, Great Lakes National Program Office in Chicago, Ill. Noteworthy topics covered at the meeting included the Great Lakes Water Quality Agreement; Great Lakes Panel Operational Guidance document; updates on the Chicago Sanitary and Ship Canal dispersal barriers; the newly revised publication on Great Lakes aquatic invasions; the status of state ballast water regulations in the basin; the city of Chicago's involvement on AIS issues; an early detection and monitoring pilot program initiated by the U.S. EPA; and federal AIS legislative updates. At the meeting, the results of recent Panel elections were also announced. Those elected include:

Chair: Mike Conlin, Director, Office of Resource Conservation, Illinois Department of Natural Resources

Vice chair: Jim Grazio, Great Lakes Biologist, Pennsylvania Department of Environmental Protection, Office of the Great Lakes and Coastal Resources

Panel committee chairs: Jennifer Nalbome, Great Lakes United (Policy Coordination Committee); Rochelle Sturtevant, NOAA, Great Lakes Environmental Research Lab (Information and Education Committee); and Phil Moy, Wisconsin Sea Grant (returning chair, Research Coordination Committee)

At-large members: Allegra Cangelosi, Northeast-Midwest Institute; Ted Batterson, North Central Regional Aquaculture Center; Doris Bautch, U.S. Department of Transportation, Maritime Administration; John Andersen, The Nature Conservancy; and Francine MacDonald, Ontario Federation of Anglers and Hunters.

The fall Panel meeting is scheduled to be held December 13-14, 2006 in Ann Arbor, Mich. The theme of the meeting will be centered on early detection and monitoring, and rapid response planning. Information on this and all previous meetings, including agendas (with links to PowerPoint presentations and related documents), meeting action items and meeting summaries can be found online through the Panel website at <http://glc.org/ans/panel.html#glpmeet>.

ANS Task Force Meeting: Kathe Glassner Shwayder, Panel administrator, participated in the spring meeting (May 2006) of the ANS Task Force held on Cape Cod, Mass. At the meeting, Glassner-Shwayder presented on the current initiatives of the Great Lakes Panel and other significant AIS activities in the Great Lakes states such as the state management planning on AIS prevention and control.

Website Maintenance: To further strengthen inter-regional communication, the Commission manages several websites presenting ANS/AIS information. Extensive efforts are made by staff to maintain these pages to reflect the current status of Commission activities and relevant partners on issues related to Great Lakes aquatic invasions. The Great Lakes Information Network (GLIN) is one of these pages and as a centralized location, helps to enhance communication and the availability of consistent information. This helps to foster cooperation in addressing unique environmental and economic challenges, including those posed by aquatic invasions. The Invasive Species section of GLIN (www.great-lakes.net/envt/flora-fauna/invasive/invasive.html) provides users with links to a variety of sites related to ANS/AIS issues, including sites for species-specific information, invasive species in the Great Lakes and recent publications related to aquatic invasions.

Under this grant, project staff manage a website covering the Great Lakes Panel on Aquatic Nuisance Species through the Great Lakes Commission website at www.glc.org/ans/anspanel.html. This site includes links to Panel publications with a page

dedicated to the publication of the *ANS Update*; current Panel and Commission initiatives and projects; information on past and upcoming meetings; contact information for Panel members; information on committee activities including their priorities documents; and a page on upcoming AIS-related events. As part of the Great Lakes Panel website, considerable effort is invested to keep membership information current which, over the years, has proven to be in a constant state of flux.

Travel Support: Funding was provided through this grant to support travel of the Indiana DNR ANS specialist for participation in the November 2005 and May 2006 meeting of the Great Lakes Panel held in Ann Arbor Mich. and Chicago, Ill., respectively.

Other Initiatives: The following projects are funded under grants other than NOAA-IFA. As noted by the outcomes of these projects, there is a strong interrelationship between the suite of AIS projects at the Great Lakes Commission, in efforts to advance the overall goal of AIS prevention and control through information, education and outreach, facilitating communication and coordination and collaboration.

Great Lakes Regional Collaboration, Aquatic Invasive Species (AIS) Strategy Team Action Plan

In addition to the aforementioned meeting presentations on regional AIS initiatives, during 2005 considerable effort was dedicated by Great Lakes Panel members and Commission staff, to participate on the Great Lakes Regional Collaboration (GLRC) AIS strategy team. Although the project ended in December 2005, with submission of the GLRC recommendations to the U.S. administration, members continue to be involved in discussion and projected implementation of the recommendations offered in the document.

The GLRC created through Executive Order in May 2004, was officially convened in December 2004 in Chicago, Illinois by the federal Great Lakes Interagency Task Force, the Council of Great Lakes Governors, the Great Lakes Cities Initiative, Great Lakes tribes and the Great Lakes Congressional Task Force. Panel members and staff provided a high level of participation and support in the development of the GLRC AIS action plan with a focus on the following five priority vectors: aquaculture, canals and waterways, maritime commerce, organisms in trade, and recreational activities. Since the convening of the GLRC in December 2004, the AIS strategy team has assembled through in person meetings and conference calls to identify Great Lakes AIS priorities. Panel members and Commission staff have contributed an extensive amount of time, expertise and editorial support in the development of a final AIS Strategy Team Action Plan which is available online at <http://www.glrc.us/>. As mentioned above, Ted Lawrence, the Commission's 2004-05 NOAA Sea Grant Fellow, authored an article on the process and content of the GLRC AIS plan.

Great Lakes Panel Operational Guidance Document

Considerable effort has been invested during this reporting period in developing the Great Lakes Panel's operational guidance document. The guidance document will serve in formalizing the conduct of the Great Lakes Panel, ultimately helping to strengthen the institutional capacity of the Panel as a multijurisdictional entity to advance AIS prevention and control programs on a regional basis. The document provides operational guidance in the following areas: mission statement; principles governing Panel operation; membership; roles and responsibilities of Panel officers; election process and eligibility for positions of Panel officers and at-large members; standing committees of the Panel; staff support; meetings; making recommendations to the national ANS Task Force; Panel funding; annual work plan; and annual reporting to Congress. A final draft of the Panel's operational guidance will be presented to the Great Lakes Panel for approval at the December 2006 meeting.

State Management Planning for Aquatic Invasive Species Prevention and Control

The project, *A Collaborative Approach to Advance Implementation of State Management Plans for Prevention and Control of AIS in the Great Lakes Region*, has provided an opportunity for the Great Lakes region to advance the state management planning (SMP) process. The project is funded primarily by the NOAA's National Sea Grant Program. Through a series of state-specific workshops, this project is designed to facilitate collaboration between the Great Lakes Commission staff and representatives from the Sea Grant programs and natural resource agencies in the Great Lakes states in an effort to advance the development and implementation of Aquatic Invasive Species (AIS) State Management Plans (SMPs). During the course of this project, Commission staff have encouraged the Great Lakes states to look beyond their jurisdictional boundaries and consider the importance of regional perspectives on state management planning for AIS prevention and control.

Significant progress has been accomplished with state-specific SMP workshops successfully conducted in Wisconsin, Minnesota and Pennsylvania during the fall of 2005 and in Michigan during the fall of 2006. Staff is working with Indiana's DNR representative, Doug Keller and Sea Grant representative, Pat Charlebois in planning Indiana's SMP workshop which is planned for January of 2007. The state-specific workshops are proving to be a valuable forum in our quest to advance the AIS prevention and control in the Great Lakes and inland waters. Staff will be working with the states on a regional summit, planned for the spring of 2007, serving as a culminating project event to showcase lessons learned from the state-specific SMP workshops and other related project activities. Further details on the outcomes of the SMP project, including workshop agendas, presentations and summaries will be posted on the project website (<http://glc.org/ans/initiatives.html#advance>). The outcome of this systematic approach to state management planning on a regional basis will be presented to the AIS Task Force at the regional summit scheduled for May 8-9, 2007.

Staff Changes:

In June of 2006 we said goodbye to Sea Grant Fellow **Lisa Butch**, currently working as a watershed coordinator at Little Beaver Creek Land Foundation in Ohio, and welcomed new Sea Grant Fellow **Erika Jensen**. Erika received a Master of Environmental Management degree from the Nicholas School of the Environment at Duke University in North Carolina. While at Duke, she focused her studies on environmental policy and completed her Master's Project on managing water and wastewater systems through public-private partnership. Erika also holds a Bachelor of Science degree in Environmental Studies from Michigan State University. During her final semester at Michigan State, she worked as an environmental policy intern for the state of Michigan Senate Majority Policy Office.

Permanent staff for this grant includes Kathe Glassner-Shwayder, Senior Project Manager and Marcia Woodburn, Program Specialist